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UTC Power
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Testimony of UTC Power
In Support Of

Raised Bills No. 1129 and 1130,
An Act Concerning Energy and the State's Economy
Raised Bill No.1131,
***An Act Concerning Renewable Energy and Weatherization*, and,**
Raised Bill No. 1132,
An Act Concerning Energy Inefficient State Buildings

Before the Energy and Technology Committee
March 17, 2009

Good afternoon Senator Fonfara, Representative Nardello and members of the Committee. I am Mike Brown, Vice President, Legal and Government Affairs at UTC Power. UTC Power appreciates the opportunity to convey its support for three Raised Bills today - **Raised Bills No. 1129 and 1130, *An Act Concerning Energy and the State's Economy*, Raised Bill No.1131, *An Act Concerning Renewable Energy and Weatherization*, and, Raised Bill No. 1132, *An Act Concerning Energy Inefficient State.***

UTC Power is the world leader in fuel cell development and application. We have worked with and evaluated all major types of fuel cell technology and are the only fuel cell company in the world that provides fuel cells for stationary, stand-by, transportation and space and defense applications. Our experience extends back more than fifty years and includes the fuel cells that enabled man to walk on the moon, the first commercial offering and application of fuel cells for stationary power, and the most efficient fuel cell system applied to transit bus applications in revenue service. All of this technology development and commercialization has been done here in Connecticut with talented Connecticut labor filling well paying Connecticut jobs. While our supply base has a global reach, none of this would be possible without the effort, dedication and expertise that UTC Power has assembled in South Windsor, CT.

Fuel cells offer a unique opportunity for the State of Connecticut to effectively lower the energy costs of its residents, while simultaneously improving the environmental quality of the state and its carbon footprint. In addition to providing electricity at the site where the demand exists, thus avoiding the transmission and distribution losses associated with the electrical grid and avoiding the escalating infrastructure costs necessary to keep up with ever increasing electrical demand, fuel cells also have the ability to meet the thermal energy demands of the same location. All this can be achieved without harmful emissions of a typical combustion process. In addition, because of the energy productivity resulting from the use of the clean thermal energy generated by the operation of the fuel cell, overall energy costs for the customer are reduced and the carbon footprint of that customer is also significantly minimized.

Connecticut is in a unique position, both on a national and global level. We are home to both of the world's leaders in fuel cell technology for large stationary applications, home to the world leader in fuel cells for heavy duty vehicle applications and have companies with technology that lead hydrogen applications in transportation, standby power and hydrogen generation. Connecticut has a wealth of talent in the technologies that are necessary to move the world toward a hydrogen-based energy economy and away from an energy economy that is dominated by the inefficient use of imported petroleum. In addition, Connecticut, because of its geography, size and location, has the opportunity to quickly assume global leadership in demonstrating how hydrogen can drive the economy, improve the environmental quality of the state, address climate change concerns and reduce the exposure of its citizens to the harmful effects from combustion of fuel for transportation, electrical generation and heating.

Energy Efficiency

All of the bills look at improving the generation, distribution and demand portions of the electrical system and encouraging the active involvement of all participants in the energy marketplace. Bills 1131 and 1132 look at opportunities to improve state and municipal energy efficiency and 1129 and 1130 build on an existing program to encourage the identification and deployment of renewable energy technologies across the marketplace.

All of the bills focus primarily on the use of electrical energy and specifically include the electric distribution companies in the state. We believe that while many technologies can provide electrons at the point of the load, the key to reducing overall energy costs is to ensure that both electrical and thermal energy are used to the maximum extent practical. Without the use of the thermal energy there is virtually no way to assure that the overall energy cost in the state will stay steady or decline. To that extent, we would encourage the legislature to consider including the natural gas distribution utilities in the equation. Both utilities bring a unique set of information and data to the table that is essential in determining where and how distributed generation can most effectively and efficiently be deployed. Distributed generation also requires a new way of thinking about how energy is distributed within a building. It is this integration that drives the upfront costs in retrofitting existing buildings to ensure effective use of both thermal and electrical energy. Involvement of the architectural and engineering communities is an essential part of ensuring success.

Financial Incentives

The bills also provide for different types of funding to promote the use of the efficient renewable energy systems. Many of these systems are relatively new to the energy marketplace and are competing with an electrical distribution system that is embedded and has the benefit of a different approach to depreciation and cost recovery than an unregulated business. Until recently, the financial incentives of the electric utilities were not aligned with the public policy of improving energy efficiency (i.e., consuming less electricity). Recent changes in the law have begun to move the utilities in a direction that begins to align the financial incentives and public policy. The ability of the electric distribution companies in the formula that is aimed at building an efficient and renewable energy system in the state is a significant step forward. We applaud the opportunity this presents to permit electric utilities to earn a return on deployed fuel cell capital. The electrical distribution utilities have the most comprehensive information on customers who may benefit from distributed electrical generation and the gas distribution utilities

have the most comprehensive information on users of thermal energy. Together, the two utilities have the necessary information to improve the overall energy efficiency of the state. We believe that this will lower the overall energy costs in the state, reducing one of the biggest impediments to economic growth for Connecticut. We urge the expansion of this program to include, if they would so elect, the natural gas distribution companies in the ability to participate in the electrical efficiency partners program. Further, the placement of fuel cells can also help reduce the congestion in the electrical distribution network within the state and improve the quality and reliability of the power received from the grid.

Contained within Senate bills 1129 and 1130 there is a fund that is established to improve the opportunity for the deployment of fuel cells and other Class I renewables through the establishment of Energy Efficiency Partnerships. We are supportive of this proposal and this funding source. By supporting up to 50% of the installed capital cost of energy efficiency projects, the state is helping to establish a market that values the lowering of energy costs by improving energy efficiency and recognizes the difficulty in competing for capital in the unregulated business world.

Administration

We support the initiatives s contemplated by all four of the bills being considered here today. We are concerned, however, about the administration of this and other energy efficiency policy actions taken by the legislature. In these bills there is an allocation of the responsibility for ensuring the success of these programs. While the policy is established by the legislature in these bills, the implementation of that policy is divided up between new and existing organizations. We would urge the legislature to consider the inefficiency in the management of energy policy and energy efficiency programs where responsibility for implementation of the programs resides with numerous state agencies, boards and quasi-public organizations. Such diffuse control can lead to incomplete policy implementation and conflicting priorities while spreading scarce resources across the same types of programs. We question whether the Energy Innovation Council is necessary to be created for the purposes of these programs or whether the concepts contemplated by Senate Bills 1129 and 1130 could be more effectively and efficiently accomplished through a realignment of purposes and efforts of existing government agencies, commissions, councils and boards.

The relationship of the objectives of these four bills and the other objectives and tools created in energy legislation during the 2007 session should also be considered. For example, the energy improvement districts contemplated by PA 07-242 could provide support for the activity contemplated by Senate Bills 1131 and 1132 as well as providing opportunity for a framework for projects contemplated under Senate Bills 1129 and 1130. Only through a coordinated and comprehensive approach to the energy consumption of the residents of the state will we be able to effectively reduce our cost of energy.